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## WHAT IS CLAIMED IS:

A method for sealing endoleaks in a patient arising from endovascular repair of abdominal aortic aneurysms which method comprises:

identifying an abdominal aortic aneurysm in a patient;

endovascularly repairing said aneurysm by catheter delivery of an endovascular prosthesis to the site of said aneurysm thereby inhibiting blood flow into the aneurysm;

identifying one or more endoleaks in a patient; and delivering through a microcatheter to the site or sites of endoleaks in said patient a sufficient amount of a fluid composition comprising a biocompatible solvent and a biocompatible polymer under conditions wherein the fluid composition forms a coherent adhesive mass *in situ* thereby sealing the endoleaks.

- 2. The method according to Claim 1 wherein said biocompatible polymer is selected from the group consisting of cellulose acetate polymers, ethylene vinyl alcohol copolymers and polyacrylates.
- 3. The method according to Claim 2 wherein said biocompatible polymer is a cellulose acetate polymer or an ethylene vinyl alcohol copolymer.
- 4. The method according to Claim 1 wherein said biocompatible solvent is selected from the group consisting of dimethylsulfoxide, ethanol, ethyl lactate, and acetone.
  - 5. The method according to Claim 4 wherein said biocompatible solvent is dimethylsulfoxide.

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- The method according to Claim 1 wherein the composition further comprises a contrast agent.
- 7. The method according to Claim 6 wherein said contrast agent is a water insoluble contrast agent.
- 8. The method according to Claim 7 wherein said water insoluble contrast agent is selected from the group consisting of tantalum, tantalum oxide, tungsten, and barium sulfate.
- 9. The method according to Claim 7 wherein said water insoluble contrast agent is characterized by having an average particle size of about 10  $\mu$ m or less.
- 10. The method according to Claim 6 wherein said contrast agent is a water soluble contrast agent.
- 11. The method according to Claim 10 wherein said water soluble contrast agent is selected from the group consisting of metrizamide, iopamidol, iothalamate sodium, iodomide sodium, and meglumine.
- 12. A method for sealing endoleaks in a patient arising from endovascular repair of abdominal aortic aneurysms which method comprises:

identifying an abdominal aortic aneurysm in a patient;

endovascularly repairing said aneurysm by catheter delivery of an endovascular prosthesis to the site of said aneurysm thereby inhibiting blood flow into the aneurysm;

identifying one or more endoleaks in a patient; and
delivering through a microcatheter to the site or sites of endoleaks in
said patient a sufficient amount of a fluid composition comprising a

biocompatible prepolymer, a water insoluble contrast agent and, when necessary to provide for a fluid composition, a biocompatible solvent wherein said delivery is conducted under conditions wherein the fluid composition forms a coherent adhesive mass *in situ* thereby sealing the endoleaks.

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13. The method according to Claim 12 wherein said water insoluble contrast agent is selected from the group consisting of tantalum, tantalum oxide, tungsten, and barium sulfate.

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14. The method according to Claim 12 wherein said water insoluble contrast agent is characterized by having an average particle size of about 10  $\mu$ m or less.

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15. The method according to Claim 12 wherein the biocompatible prepolymer is selected from the group consisting of cyanoacrylates, hydroxyethyl methacrylate and silicon prepolymers.

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- 16. A kits of parts for use in sealing endoleaks arising from endovascular repair of an aneurysm which comprises:
- (a) a fluid composition which forms a coherent mass in the presence of blood which mass adheres to the vascular surface and/or the surface of the endovascular prosthesis.

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- (b) a catheter suitable for delivering the fluid composition to an endoleak site formed from endovascular repair of an aneurysm; and
- (c) a catheter suitable for delivering an endovascular prosthesis to the aneurysm.

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17. The kit of parts according to Claim 16 which kit further comprises an endovascular prosthesis.

- 18. A kits of parts for use in sealing endoleaks/arising from endovascular repair of an aneurysm which comprises:
- (a) a fluid composition which forms a coherent mass in the presence of blood which mass adheres to the vascular surface and/or the surface of the endovascular prosthesis;
- (b) a catheter suitable for delivering the fluid composition to an endoleak site formed from endovascular repair of an aneurysm; and
  - (c) an endovascular prosthesis.
- 19. The kit of parts according to Claim 18 which kit further comprises a catheter suitable for delivering an endovascular prosthesis to the aneurysm.

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